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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,713	07/05/2001	Yonglin Huang	NFCS-00-014	3966

7590 05/09/2002  
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EXAMINER

SHAFER, RICKY D

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 05/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/900,713

Applicant(s)

HUANG ET AL

Examiner

R.D. SHAFER

Group Art Unit

2872

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 months MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- ☒ Responsive to communication(s) filed on 7/05/01
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-46 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-46 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☒ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some\* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

Office Action Summary

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1. Claims 1-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 9, 22, 35 and 41 are vague, indefinite and fail to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The above mentioned claims list a plurality of optical elements without any correlation or nexus between the elements so as to present a complete operative device.

In claim 1, lines 7-8, the use of the language "a wedge...polarizer" is vague and indefinite due to the fact the claim fails to properly define the first polarizer includes a wedge cutting angle.

In claim 1, line 10, the use of the language "said optic axis angle" is vague, indefinite and/or confusing. It would appear that the above mentioned language lacks proper antecedent basis. Moreover, it is unclear whether applicant is referring to the optic axis of the second polarizer or the correction element.

In claim 2, line 2, the use of the language "the same wedge angle" is vague and indefinite for the same reason stated above.

In claims 35 and 41, the use of the language "said substantially parallel" is vague, indefinite and lacks proper antecedent basis. Moreover, the use of the above mentioned language in connection with the language "at least...polarizer" recited thereafter, renders that portion of the claim nonsensical.

In claims 37 and 43, line 2, the use of the language "namely DGD" is vague and indefinite.

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3. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 37 and 43 recites the broad recitation polarization mode dispersion, and the claim also recites DGD which is the narrower statement of the range/limitation.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 9-12, 20, 21, 35-37 and 41-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsui ('245).

To the extent the claims are definite, Matsui discloses an optical isolator comprising a first polarizer (12), a polarization rotator (17), a second polarizer (13) and a correction element (16).

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Note figures 2 and 3 and the associated description thereof.

6. Claims 9-12, 15-25 and 27-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Konno et al ('264).

To the extent the claims are definite, Konno et al discloses an optical isolator comprising a first polarizer (P11), a polarization rotator (F1), a second polarizer (P12) and a correction element (P13e), or alternatively a first polarizer (P21,P21e), a polarization rotator (F), a second polarizer (P22) and a correction element (P23,P23e), wherein the walk off distance of at least one of the rays is inherently approximately equal to the length of the correction element multiplied by the tangent of an angle (B) due to the fact that the rays are synthesized at the exit end of the correction element. Note figures 1A, 1B, 7A and 7B and the associated description thereof.

7. Claims 9-26 and 28-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura ('892).

To the extent the claims are definite, Nakamura discloses an optical isolator comprising a first polarizer (1), a polarization rotator (4 or 5), a second polarizer (2) and a correction element (3), or alternatively a first polarizer (11), a polarization rotator (14), a second polarizer (12) and a correction element (33), wherein the walk off distance of at least one of the rays is inherently approximately equal to the length of the correction element multiplied by the tangent of an angle (B) due to the fact that the rays are synthesized at the exit end of the correction element. Note figures 1 to 5 and the associated description thereof.

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8. Claims 9-26 and 28-46 are rejected under 35 U.S.C. 102(b) as being anticipated by MacArthur ('058).

To the extent the claims are definite, MacArthur discloses an optical isolator comprising a first polarizer (21), a polarization rotator (27), a second polarizer (23) and a correction element (42), wherein the walk off distance of at least one of the rays is inherently approximately equal to the length of the correction element multiplied by the tangent of an angle (B) due to the fact that the rays are synthesized at the exit end of the correction element. Note figures 1 to 9 and the associated description thereof.

9. Claims 9-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsumoto et al ('329).

To the extent the claims are definite, Matsumoto et al discloses an optical isolator comprising a first polarizer (4), a polarization rotator (6), a second polarizer (5) and a correction element (7) or alternately a first polarizer (4), a polarization rotator (6), a second polarizer (8) and a correction element (5), wherein the walk off distance of at least one of the rays is inherently approximately equal to the length of the correction element multiplied by the tangent of an angle (B) due to the fact that the rays are synthesized at the exit end of the correction element. Note figures 1A to 6 and the associated description thereof.

10. Claims 1-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Swan ('771).

To the extent the claims are definite, Swan discloses an optical isolator comprising a first polarizer (14), a polarization rotator (12), a second polarizer (16) and a correction element (22),

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wherein the walk off distance of at least one of the rays is inherently approximately equal to the length of the correction element multiplied by the tangent of an angle (B) due to the fact that the rays are synthesized at the exit end of the correction element. Note figures 1 to 3 and the associated description thereof.

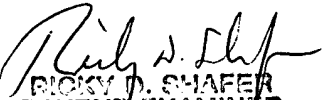
11. The disclosure is objected to because of the following informalities: elements 114 and 116, shown in Fig. 1, each lack a proper written description.

Appropriate correction is required.

12. Any inquiry concerning this communication should be directed to R.D. Shafer at telephone number (703) 308-4813.

RDS

May 3, 2002

  
RICKY D. SHAFER  
PATENT EXAMINER  
ART UNIT 2872